FIG. 1

LAN — 120_a

LAN — 120_b

— 110
ROUTER

WIDE
AREA
NETWORK
(WAN) — 130

— 110
ROUTER

ROUTER — 110

— 140
REMOTE
COMPUTER

120_c

LAN

120_d
LOCAL
AREA
NETWORK
(LAN)

— 140
REMOTE
COMPUTER
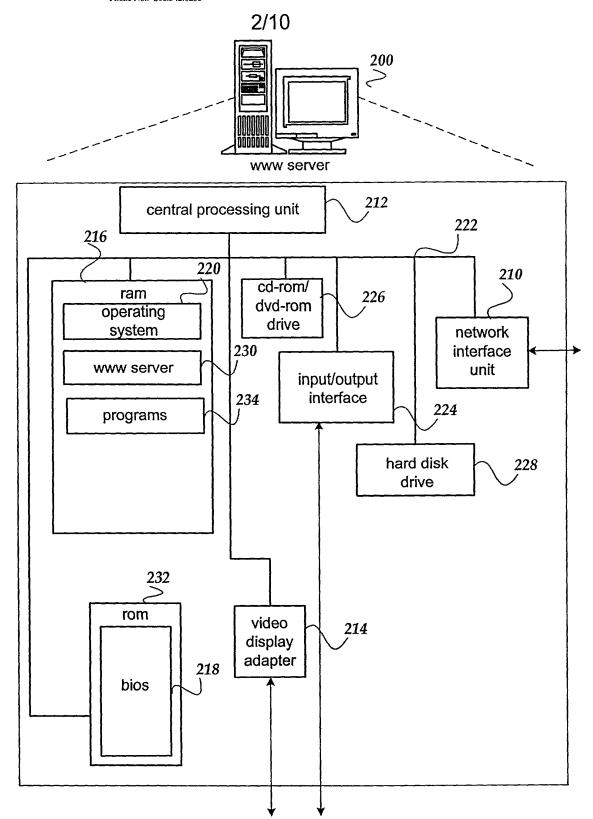
100

Inventor: Michael Irvin Hyman
Docket No.: 50044.12USU1
Title: METHOD AND SYSTEM FOR CREATING SOFTWARE APPLICATIONS IN A
VISUAL DEVELOPMENT ENVIRONMENT
Attorney Name: John S. Jardine
Phone No.: 206.342.6253

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200

www server

central processing unit   212

216

222

220

ram   210

operating
system

cd-rom/
dvd-rom
drive   226

network
interface
unit

www server   230

input/output
interface

programs   234

224

hard disk
drive   228

232

rom

video
display
adapter   214

bios   218

FIG. 2

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Attorney Name: John S. Jardine
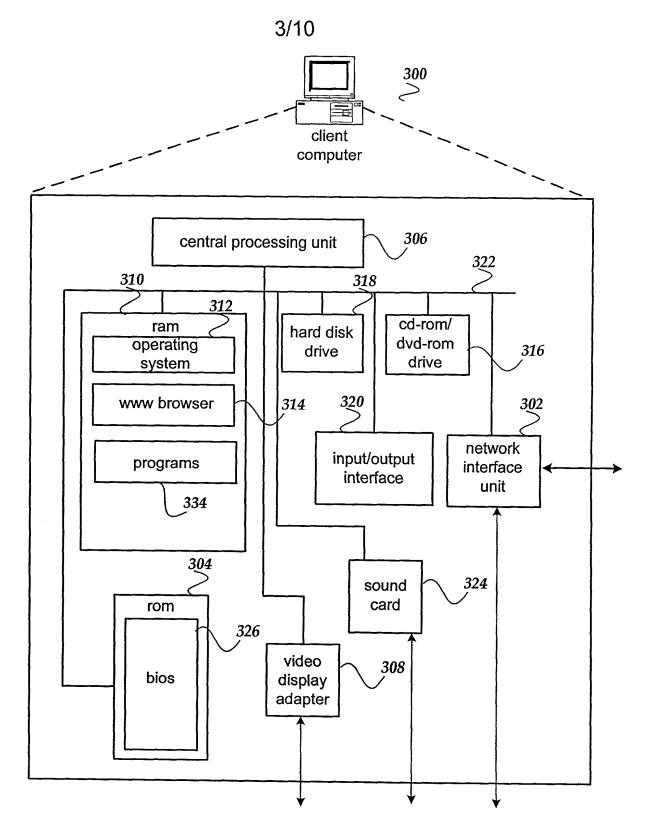Phone No.: 206.342.6253

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client
computer

300

central processing unit   *306*

322

310   *318*

312

ram   hard disk   cd-rom/
operating   drive   dvd-rom
system   drive   *316*

www browser   *314*   *320*   *302*

input/output   network
interface   interface
programs   unit

334

304   sound   *324*
card
rom

326

bios   video   *308*
display
adapter

FIG. 3

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Attorney Name: John S. Jardine
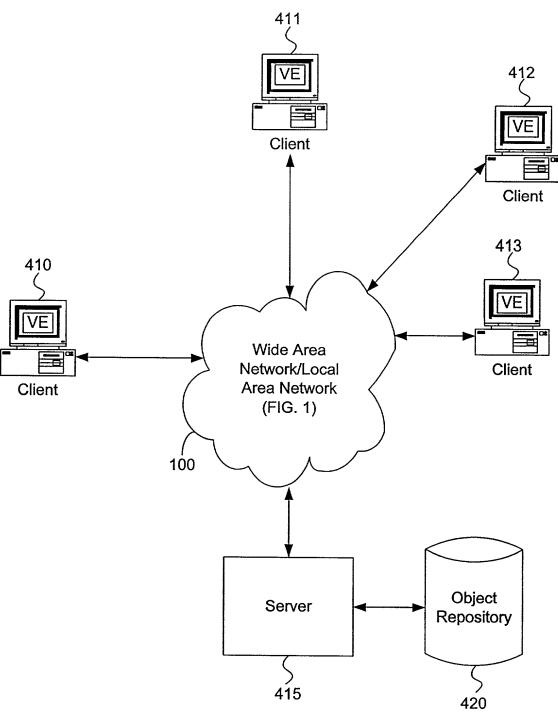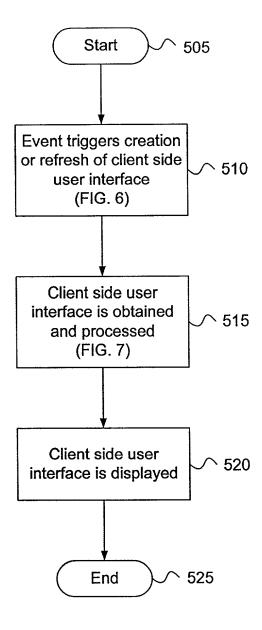Phone No : 206.342.6253

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411

VE

Client

412

VE

Client

410

VE

Client

413

VE

Client

Wide Area
Network/Local
Area Network
(FIG. 1)

100

Server

415

Object
Repository

420

FIG. 4

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FIG. 5

Start ⟩ ∿ 505

↓

Event triggers creation
or refresh of client side
user interface
(FIG. 6) ∿ 510

↓

Client side user
interface is obtained
and processed
(FIG. 7) ∿ 515

↓

Client side user
interface is displayed ∿ 520

↓

End ∿ 525

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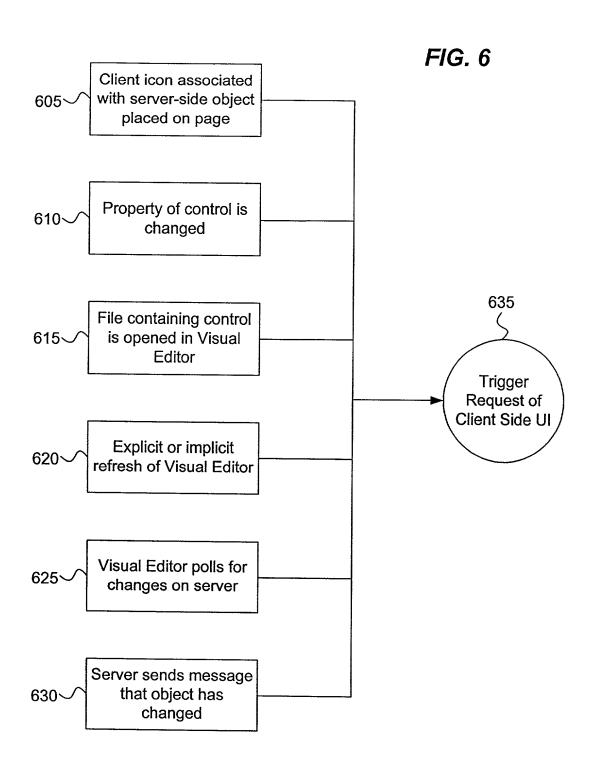Phone No : 206.342 6253

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FIG. 6

605 — Client icon associated with server-side object placed on page

610 — Property of control is changed

615 — File containing control is opened in Visual Editor

620 — Explicit or implicit refresh of Visual Editor

625 — Visual Editor polls for changes on server

630 — Server sends message that object has changed

635

Trigger Request of Client Side UI
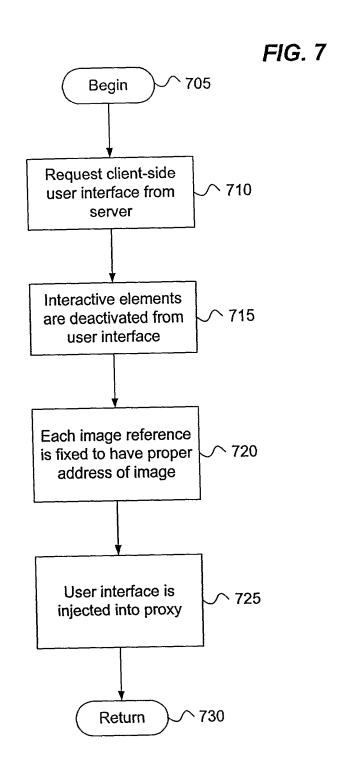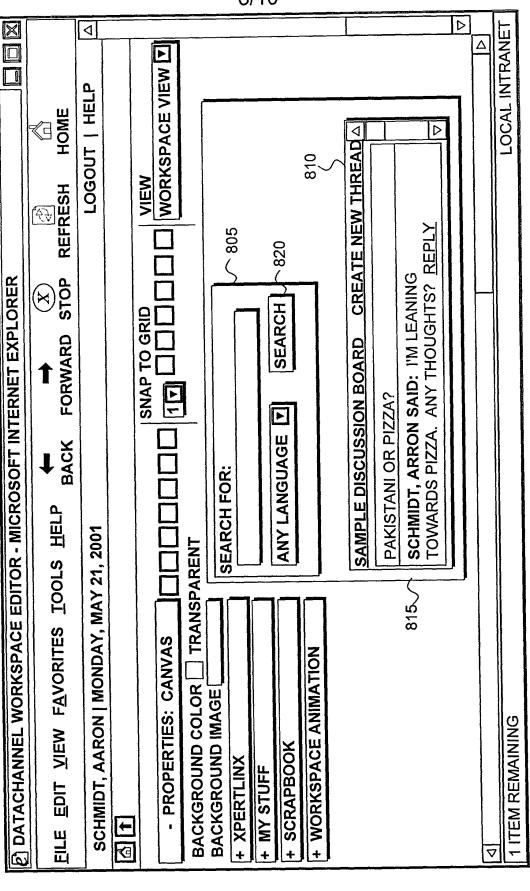
Inventor: Michael Irvin Hyman
Docket No.: 50044.12USU1
Title: METHOD AND SYSTEM FOR CREATING SOFTWARE APPLICATIONS IN A
VISUAL DEVELOPMENT ENVIRONMENT
Attorney Name: John S. Jardine
Phone No.: 206.342.6253

FIG. 7

```
        ┌──────────┐
        │  Begin   │  ⌒ 705
        └──────────┘
              │
              ▼
     ┌──────────────────┐
     │ Request client-side│
     │ user interface from│  ⌒ 710
     │     server        │
     └──────────────────┘
              │
              ▼
     ┌──────────────────┐
     │ Interactive elements│
     │ are deactivated from│  ⌒ 715
     │   user interface   │
     └──────────────────┘
              │
              ▼
     ┌──────────────────┐
     │ Each image reference│
     │ is fixed to have proper│  ⌒ 720
     │  address of image  │
     └──────────────────┘
              │
              ▼
     ┌──────────────────┐
     │ User interface is  │
     │ injected into proxy │  ⌒ 725
     └──────────────────┘
              │
              ▼
        ┌──────────┐
        │  Return  │  ⌒ 730
        └──────────┘
```

FIG. 8

```
<form action="http://www.altavista.com/sites/search/web"
  name="mfrm" target="_new">
  <table width="148" cellspacing="0" cellpadding="4" border="0">
    <tr><td bgColor="#FFFFFF">
      <center><a href="http://www.altavista.com" target="_new">
        <ui:img relative="widget" src="images/av.gif"
          height="41" width="190" border="0" alt="AltaVista" />
      </a></center>
    </td></tr>
    <tr><td bgcolor="#ffcc00" style="font-size:x-small">
      <b>Search for:</b><br>
      <input type="text" name="q" size="30" maxlength="800"><br>
      <SELECT NAME=kl>
        <OPTION VALUE=XX>any language
        <OPTION VALUE=en>English
        <OPTION VALUE=zh>Chinese
        <OPTION VALUE=cs>Czech
        <OPTION VALUE=da>Danish
        <OPTION VALUE=nl>Dutch
        <OPTION VALUE=fi>Finnish
        <OPTION VALUE=fr>French
        <OPTION VALUE=de>German
        <OPTION VALUE=el>Greek
        <OPTION VALUE=he>Hebrew
        <OPTION VALUE=it>Italian
        <OPTION VALUE=ja>Japanese
        <OPTION VALUE=ko>Korean
        <OPTION VALUE=lv>Latvian
        <OPTION VALUE=lt>Lithuanian
        <OPTION VALUE=ro>Romanian
        <OPTION VALUE=ru>Russian
        <OPTION VALUE=es>Spanish
        <OPTION VALUE=sv>Swedish
      </SELECT>
       <input type="submit" name="search" value="Search"
      style="font-size:x-small; font-weight:bold; color:#FFF;
      background-color:#036; border-style:outset;
      border-color:#69F;">
    </td></tr>
  </table>
</form>
```

FIG. 9

```
<form action="http://www.altavista.com/sites/search/web"
  name="mfrm" target="_new">
  <table width="148" cellspacing="0" cellpadding="4" border="0">
    <tr><td bgColor="#FFFFFF">
      <center><a href="#">
        <img src="/skilift/ui/widgets/dc_altavista_v1/images/av.gif"
          height="41" width="190" border="0" alt="AltaVista">
      </a></center>
    </td></tr>
    <tr><td bgcolor="#ffcc00" style="font-size:x-small">
      <b>Search for:</b><br>
      <input type="text" name="q" size="30" maxlength="800"><br>
      <SELECT NAME=kl>
        <OPTION VALUE=XX>any language
        <OPTION VALUE=en>English
        <OPTION VALUE=zh>Chinese
        <OPTION VALUE=cs>Czech
        <OPTION VALUE=da>Danish
        <OPTION VALUE=nl>Dutch
        <OPTION VALUE=fi>Finnish
        <OPTION VALUE=fr>French
        <OPTION VALUE=de>German
        <OPTION VALUE=el>Greek
        <OPTION VALUE=he>Hebrew
        <OPTION VALUE=it>Italian
        <OPTION VALUE=ja>Japanese
        <OPTION VALUE=ko>Korean
        <OPTION VALUE=lv>Latvian
        <OPTION VALUE=lt>Lithuanian
        <OPTION VALUE=ro>Romanian
        <OPTION VALUE=ru>Russian
        <OPTION VALUE=es>Spanish
        <OPTION VALUE=sv>Swedish
      </SELECT>
       <input type="button" name="search" value="Search"
      style="font-size:x-small; font-weight:bold; color:#FFF;
      background-color:#036; border-style:outset;
      border-color:#69F;">
    </td></tr>
  </table>
</form>
```

FIG. 10